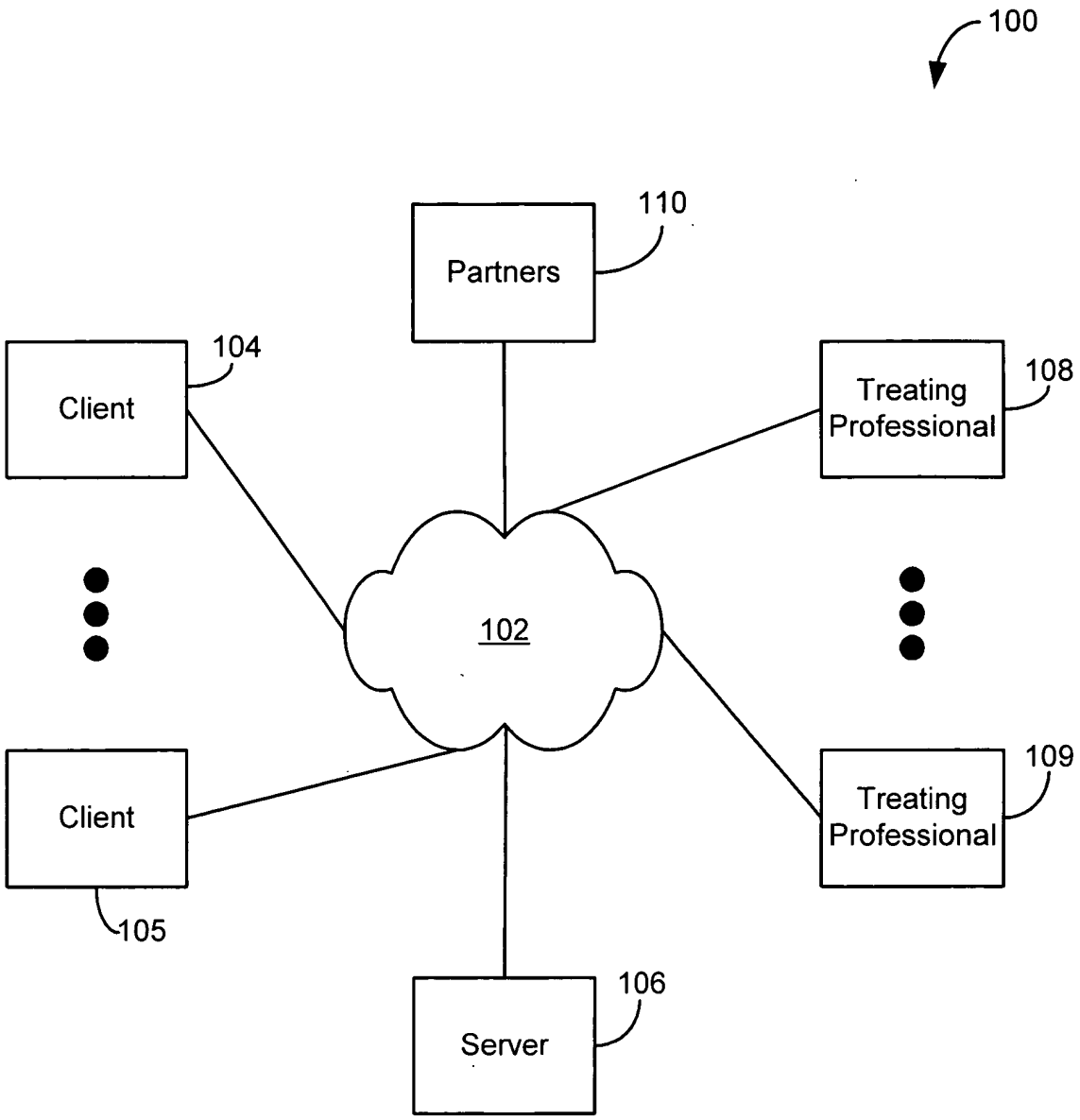
100
Partners
110
Client
104
Treating Professional
108
102
Client
105
Treating Professional
109
Server
106

FIG. 1

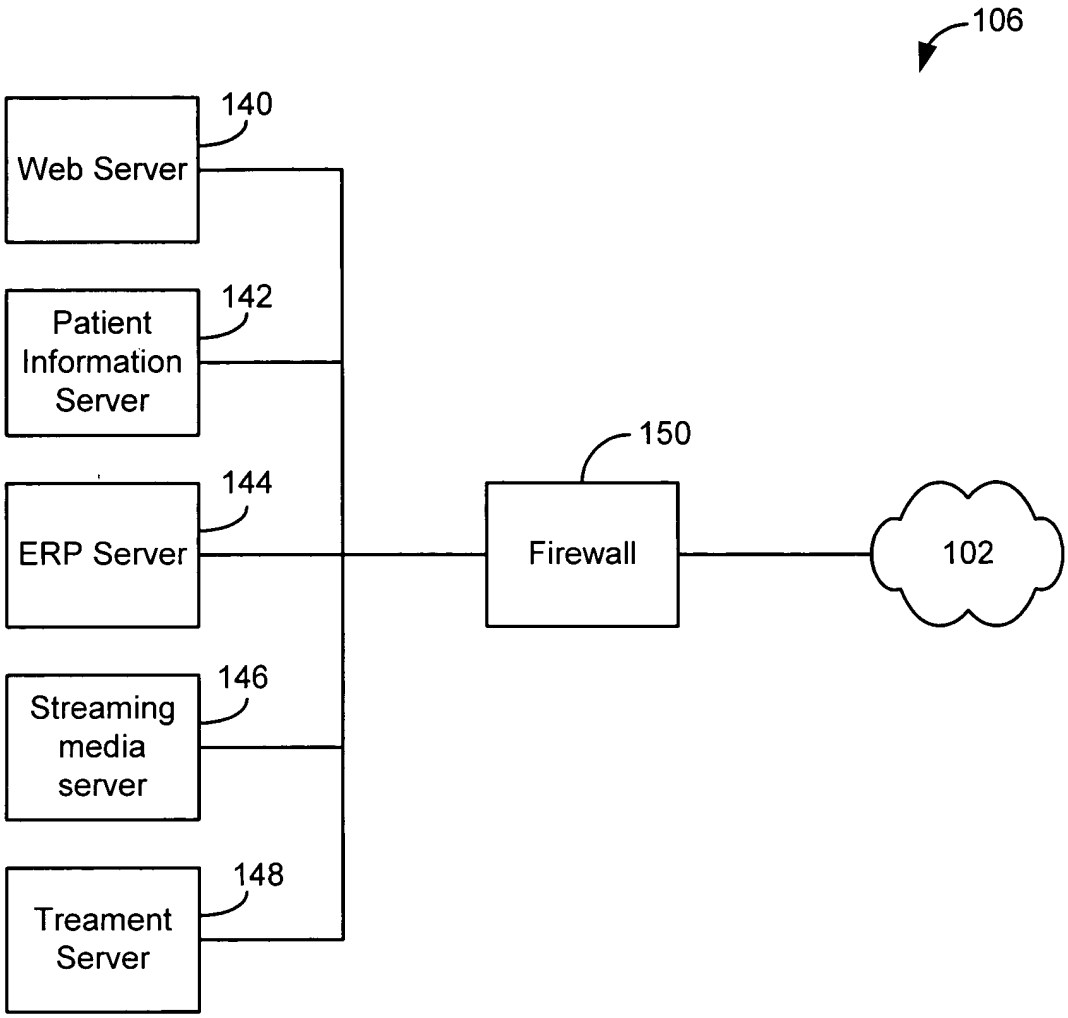
106
140
Web Server
142
Patient Information Server
144
ERP Server
146
Streaming media server
148
Treament Server
150
Firewall
102

FIG. 2

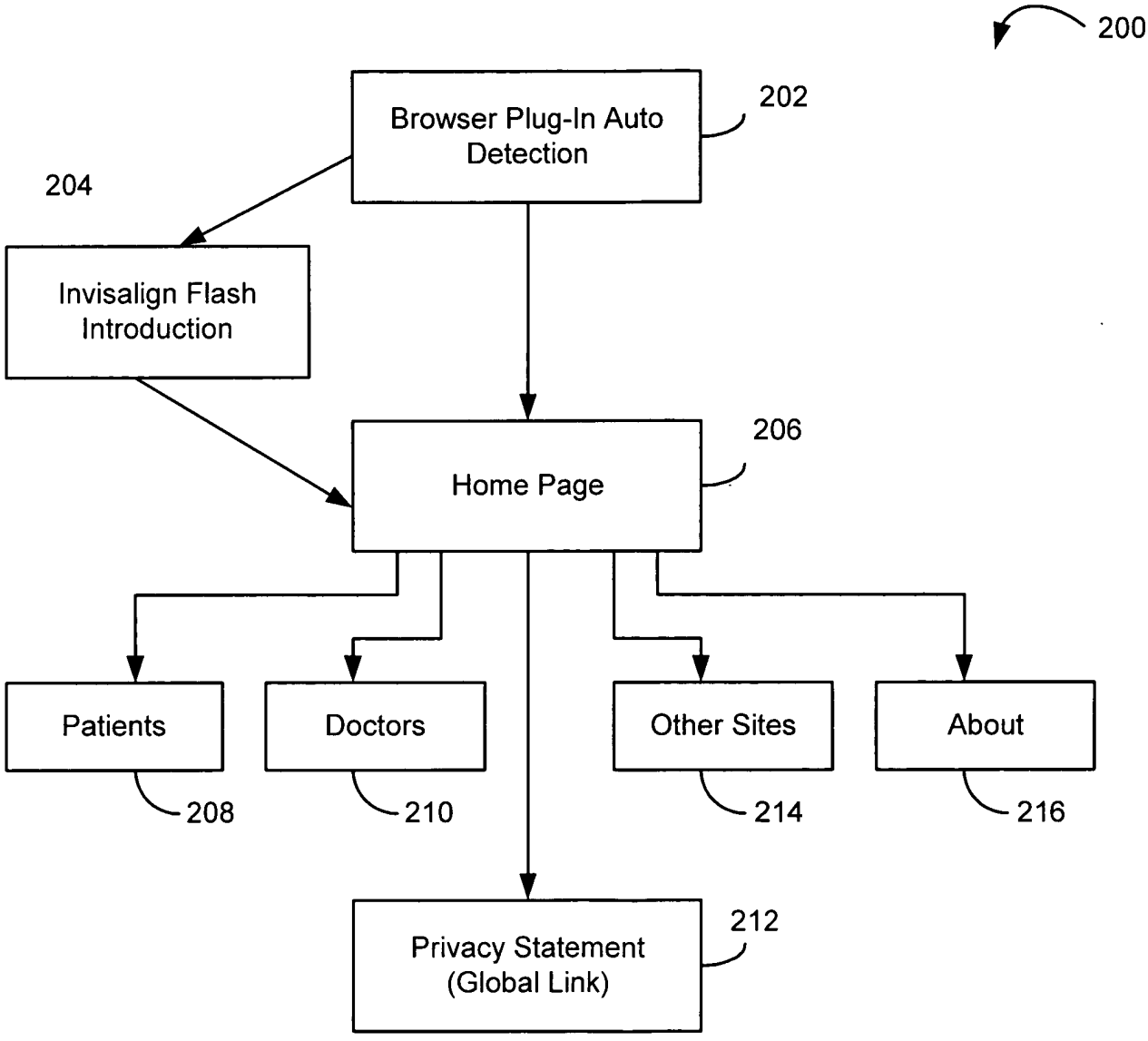
200
Browser Plug-In Auto Detection
202
204
Invisalign Flash Introduction
206
Home Page
Patients
Doctors
Other Sites
About
208
210
214
216
Privacy Statement (Global Link)
212

FIG. 3

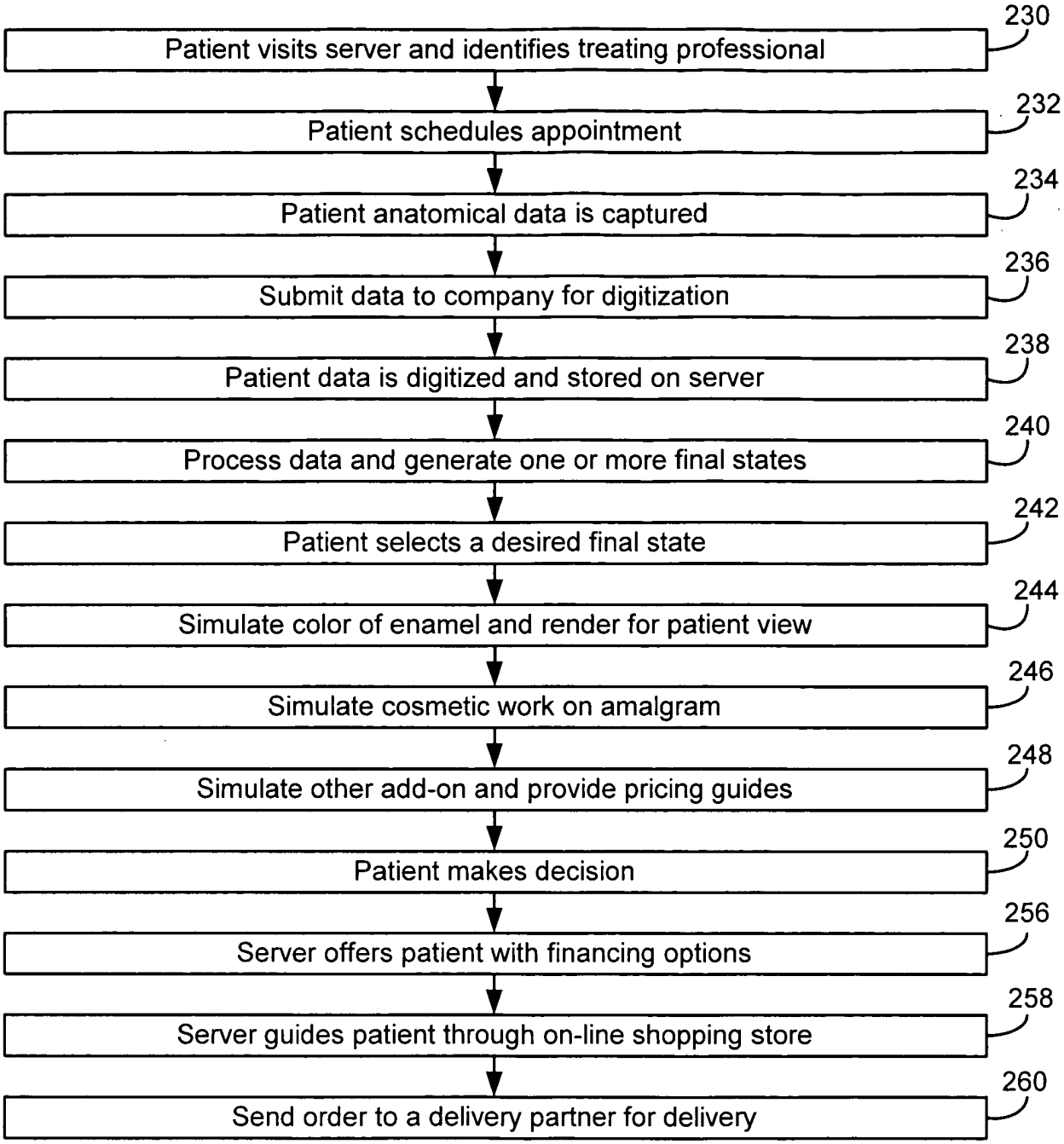
Patient visits server and identifies treating professional
230
Patient schedules appointment
232
Patient anatomical data is captured
234
Submit data to company for digitization
236
Patient data is digitized and stored on server
238
Process data and generate one or more final states
240
Patient selects a desired final state
242
Simulate color of enamel and render for patient view
244
Simulate cosmetic work on amalgram
246
Simulate other add-on and provide pricing guides
248
Patient makes decision
250
Server offers patient with financing options
256
Server guides patient through on-line shopping store
258
Send order to a delivery partner for delivery
260

FIG. 4

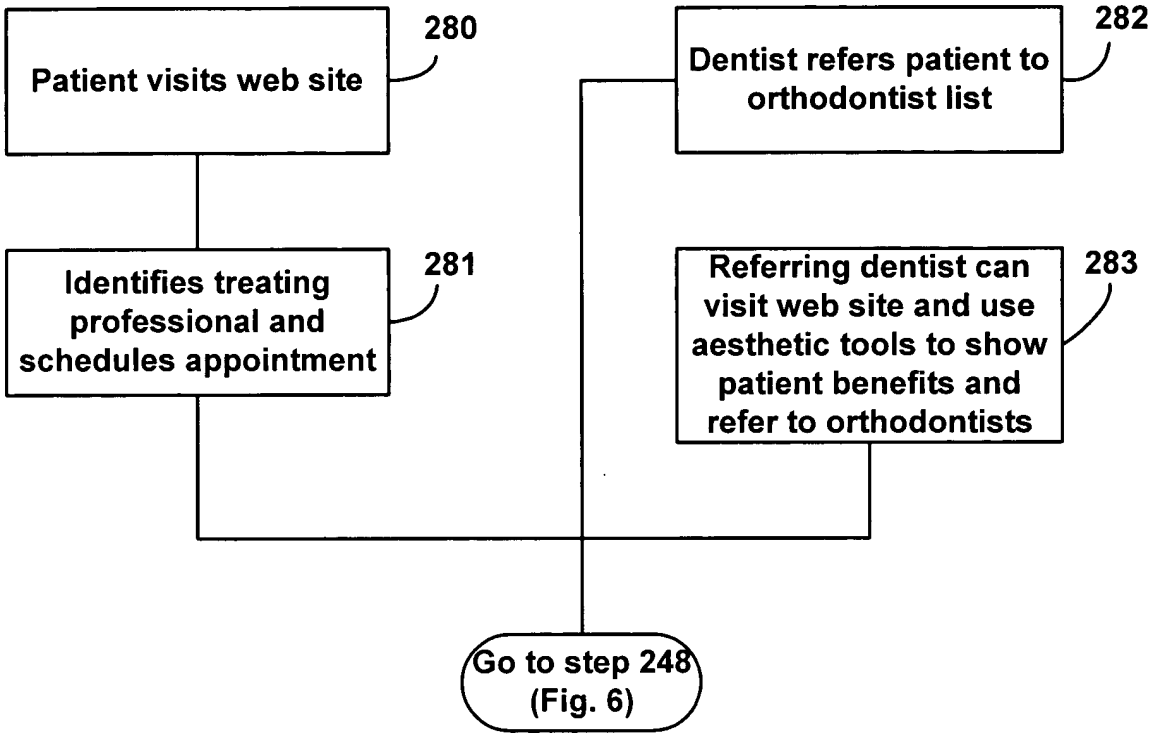
Patient visits web site
280
Identifies treating professional and schedules appointment
281
Dentist refers patient to orthodontist list
282
Referring dentist can visit web site and use aesthetic tools to show patient benefits and refer to orthodontists
283
Go to step 248 (Fig. 6)

FIG. 5

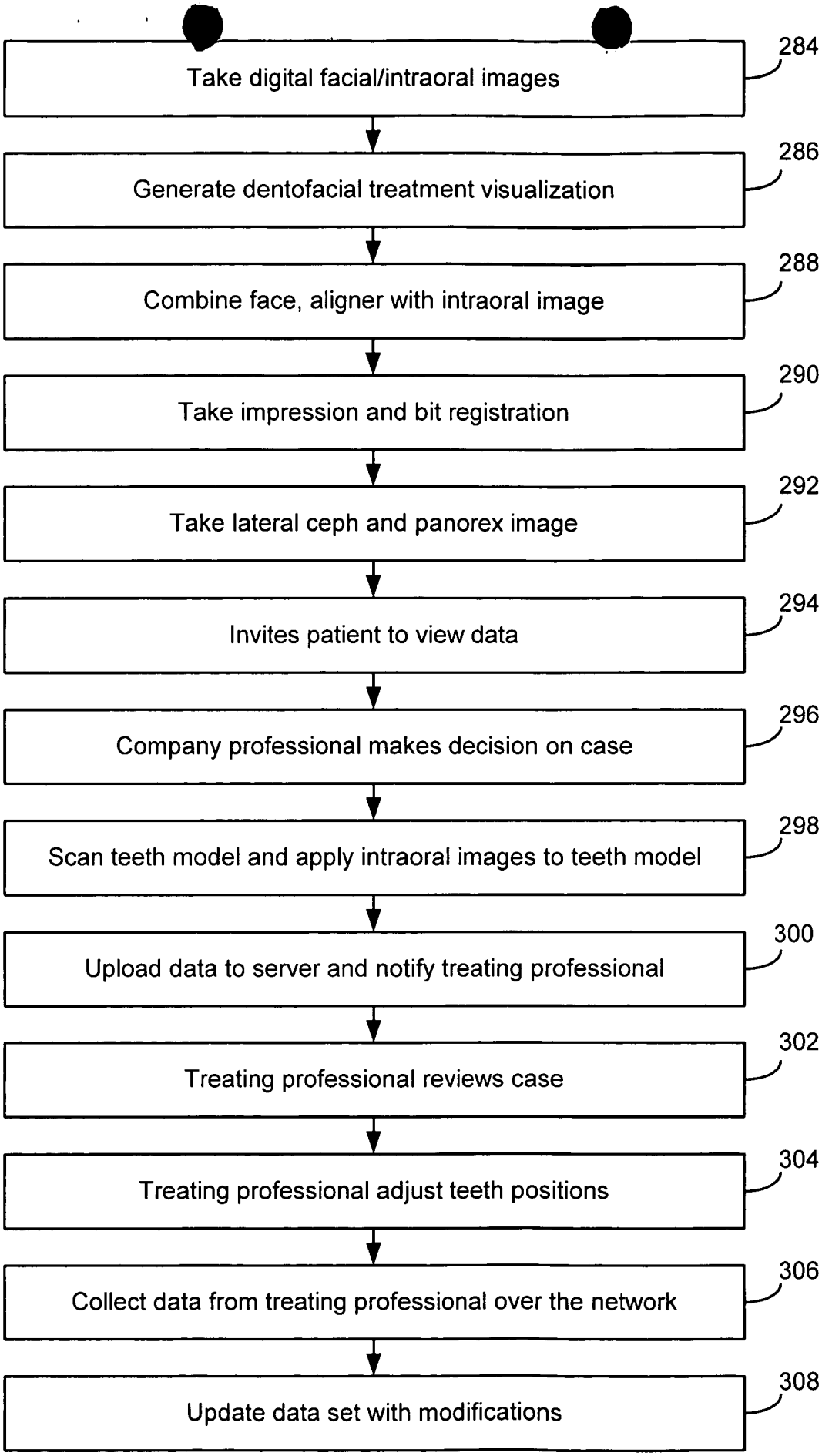
Take digital facial/intraoral images
284
Generate dentofacial treatment visualization
286
Combine face, aligner with intraoral image
288
Take impression and bit registration
290
Take lateral ceph and panorex image
292
Invites patient to view data
294
Company professional makes decision on case
296
Scan teeth model and apply intraoral images to teeth model
298
Upload data to server and notify treating professional
300
Treating professional reviews case
302
Treating professional adjust teeth positions
304
Collect data from treating professional over the network
306
Update data set with modifications
308

FIG. 6

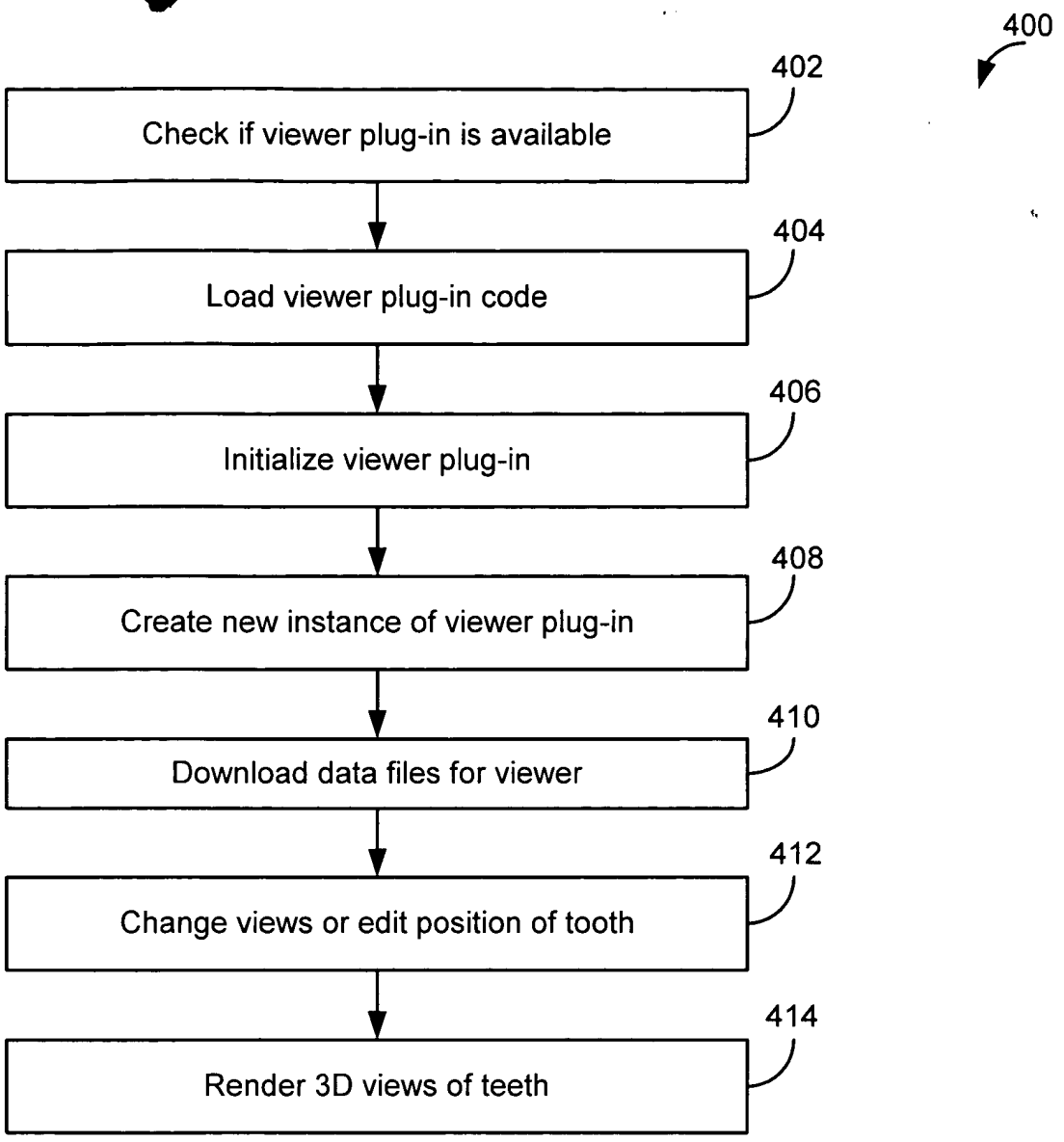
400
402
Check if viewer plug-in is available
404
Load viewer plug-in code
406
Initialize viewer plug-in
408
Create new instance of viewer plug-in
410
Download data files for viewer
412
Change views or edit position of tooth
414
Render 3D views of teeth

FIG. 7

BEST AVAILABLE COPY

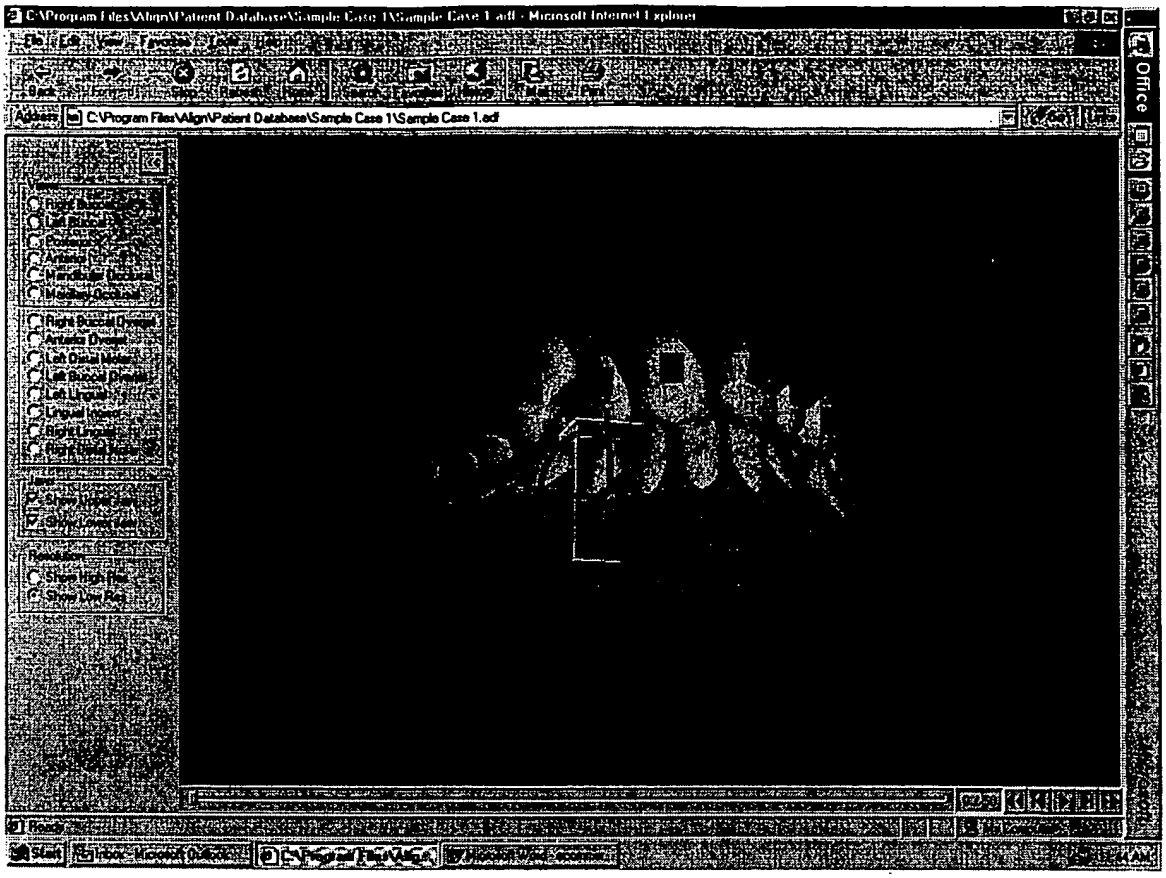

FIG. 8

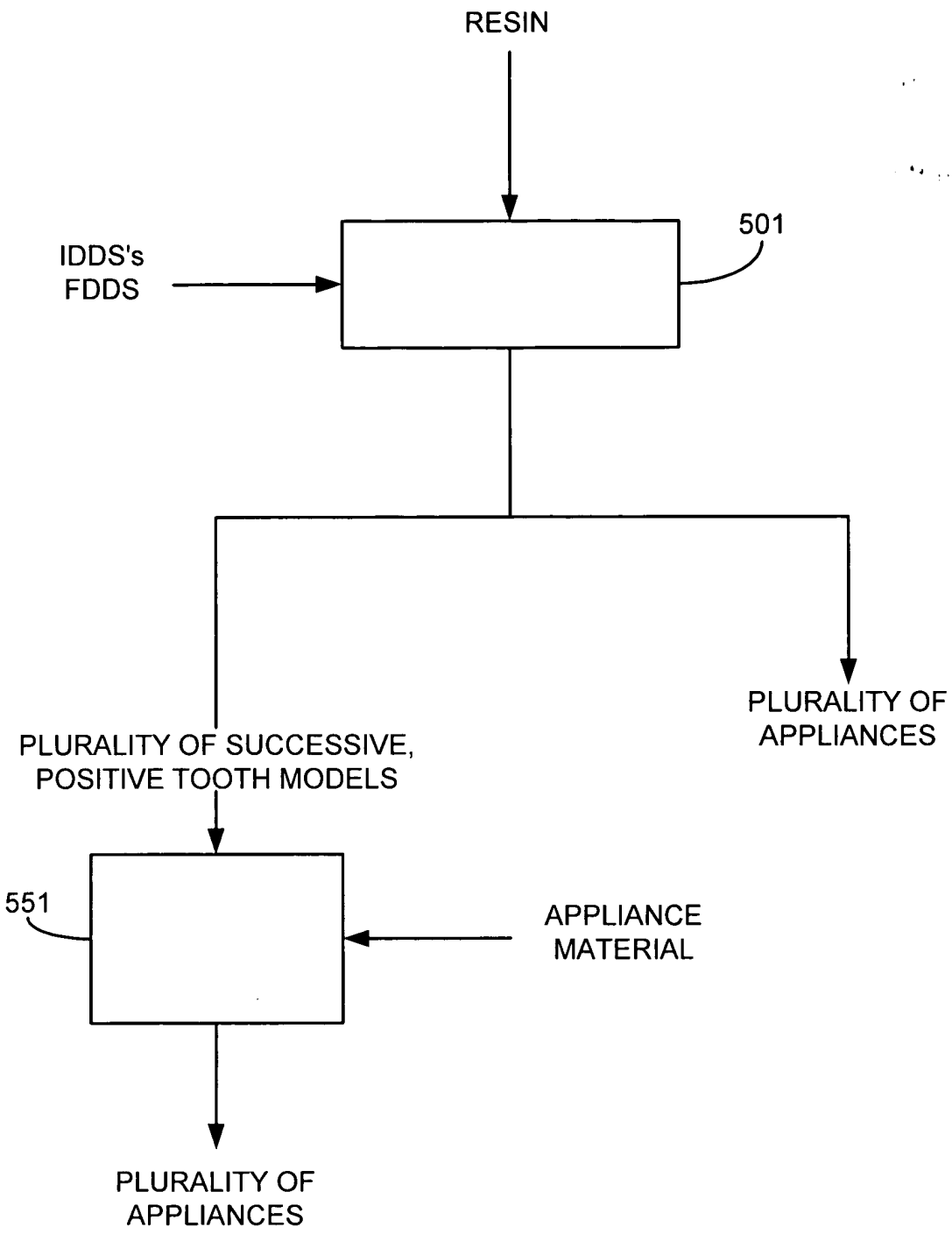
RESIN
501
IDDS's
FDDS
PLURALITY OF
APPLIANCES
PLURALITY OF SUCCESSIVE,
POSITIVE TOOTH MODELS
551
APPLIANCE
MATERIAL
PLURALITY OF
APPLIANCES

FIG. 9

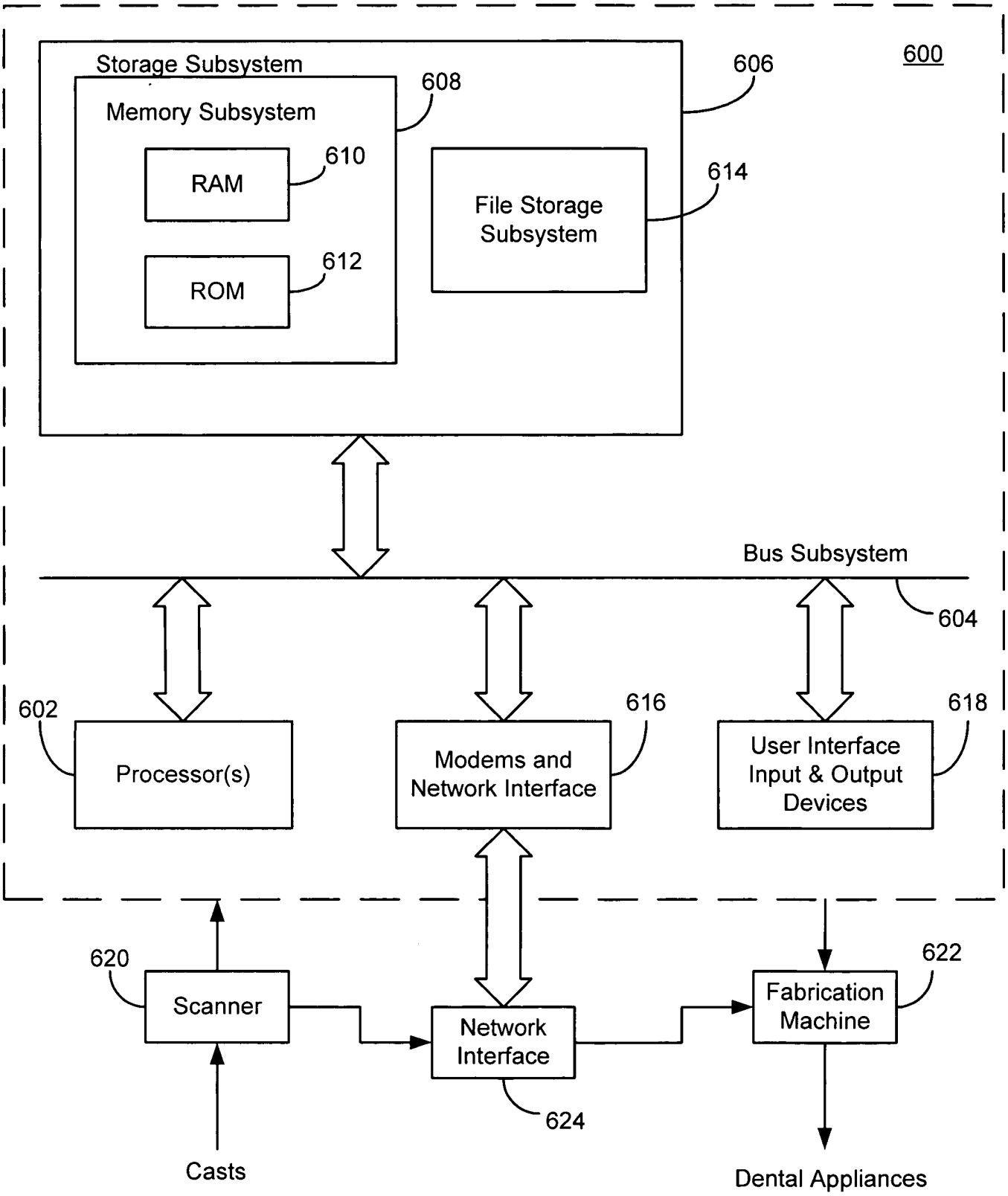
600
Storage Subsystem
606
608
Memory Subsystem
610
RAM
612
ROM
614
File Storage Subsystem
Bus Subsystem
604
602
Processor(s)
616
Modems and Network Interface
618
User Interface Input & Output Devices
620
Scanner
622
Fabrication Machine
Network Interface
624
Casts
Dental Appliances

FIG. 10

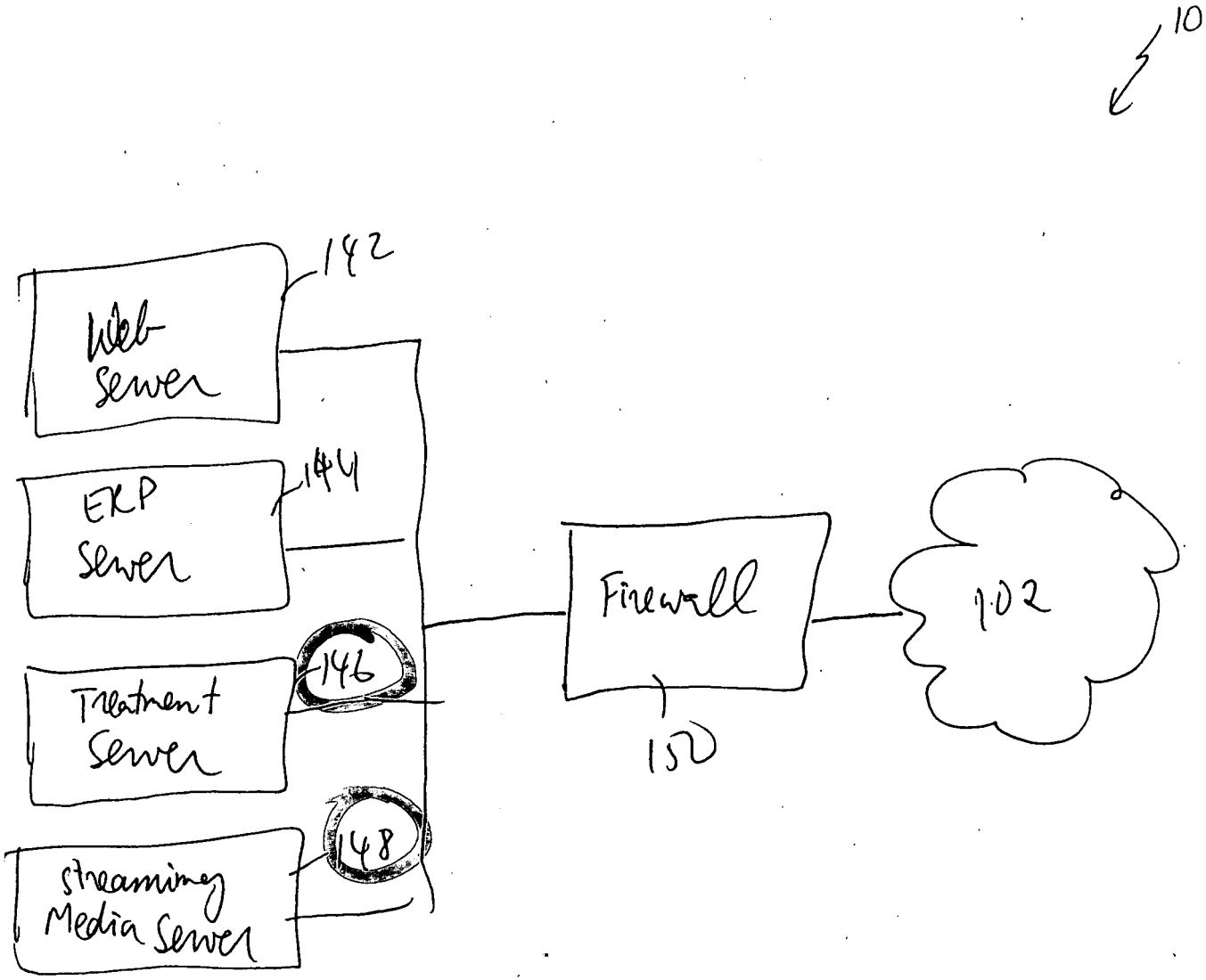
106
142
Web Server
144
ERP Server
146
Treatment Server
148
Streaming Media Server
Firewall
150
102

Fig. 2

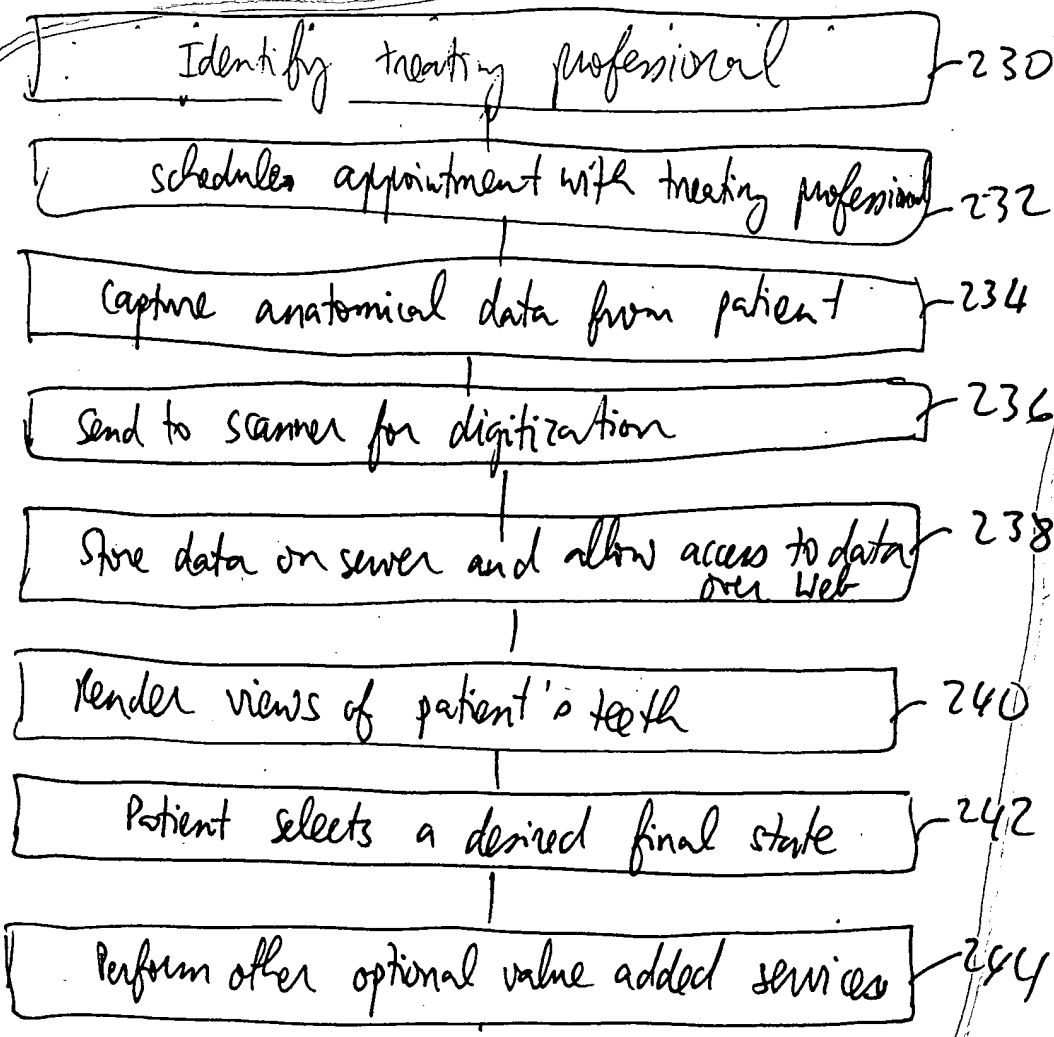
Identify treating professional
230
Schedules appointment with treating professional
232
Capture anatomical data from patient
234
Send to scanner for digitization
236
Store data on server and allow access to data over Web
238
Render views of patient's teeth
240
Patient selects a desired final state
242
Perform other optional value added services
244

FIG. 2B

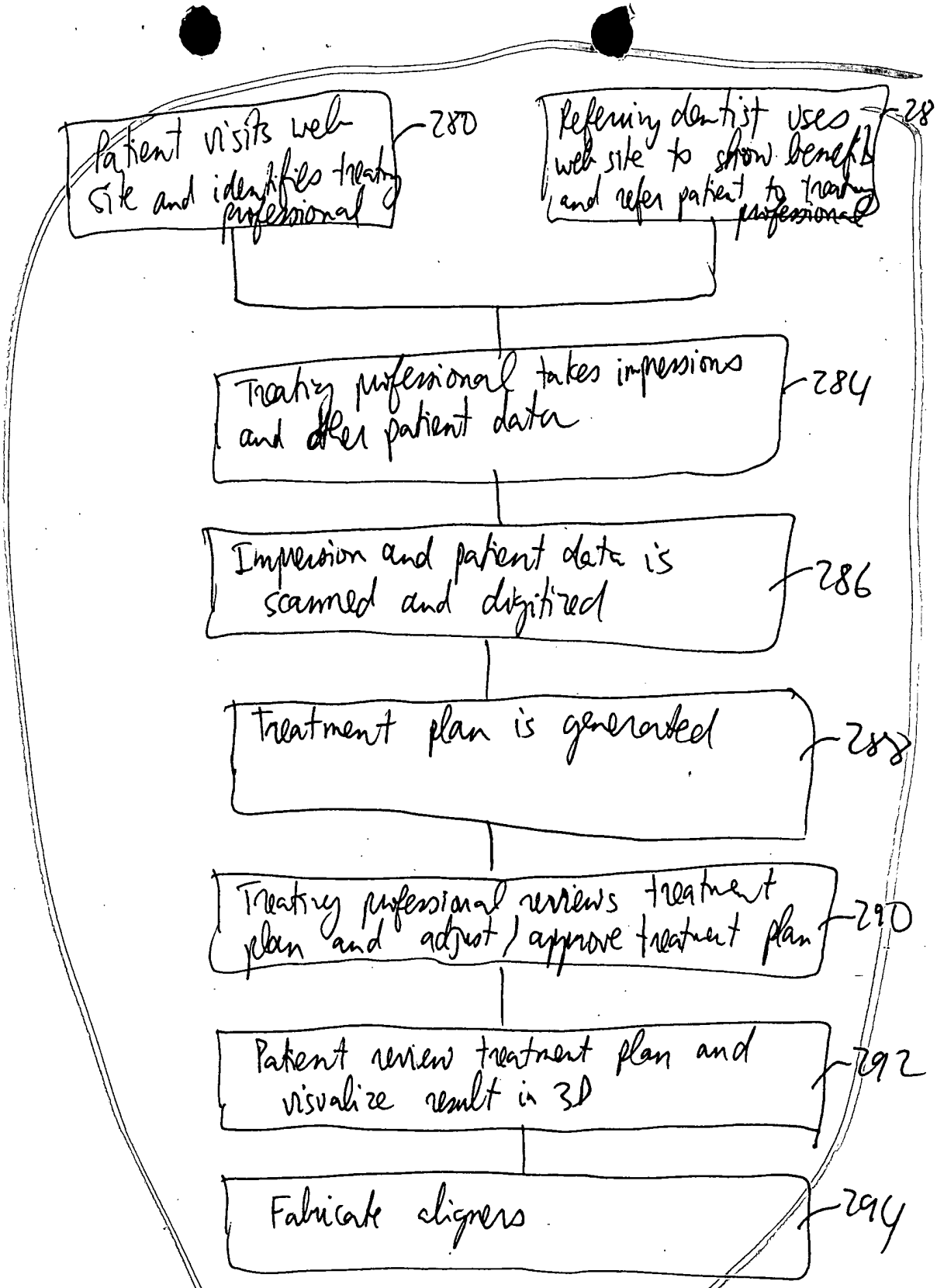
Patient visits web site and identifies treating professional
280
Referring dentist uses web site to show benefits and refer patient to treating professional
282
Treating professional takes impressions and offer patient data
284
Impression and patient data is scanned and digitized
286
Treatment plan is generated
288
Treating professional reviews treatment plan and adjust / approve treatment plan
290
Patient review treatment plan and visualize result in 3D
292
Fabricate aligners
294

Fig. 5

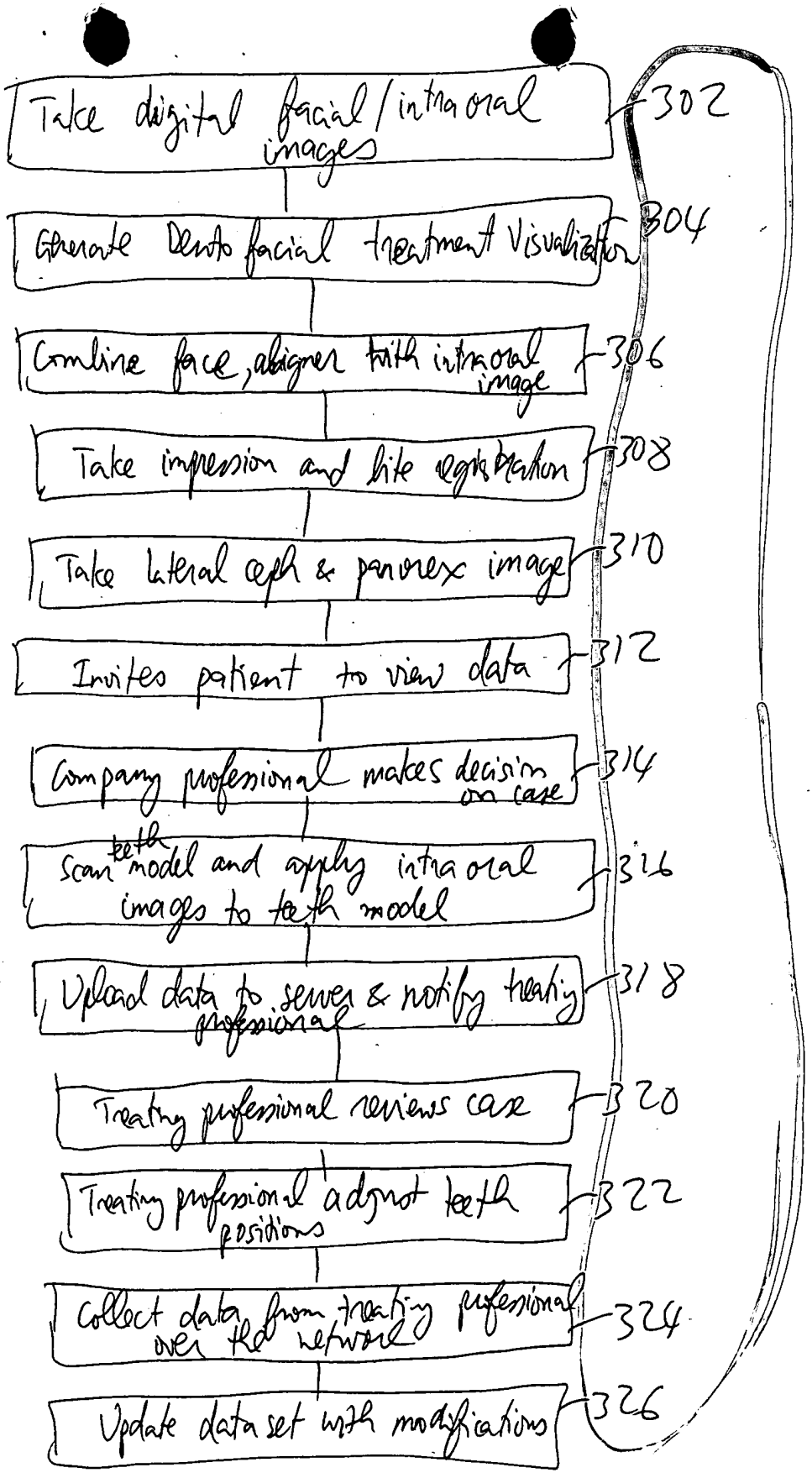
Take digital facial/intraoral images
302
Generate Dento facial treatment Visualization
304
Combine face, aligner with intraoral image
306
Take impression and bite registration
308
Take lateral ceph & panorex image
310
Invites patient to view data
312
Company professional makes decision on case
314
Scan teeth model and apply intraoral images to teeth model
316
Upload data to server & notify treating professional
318
Treating professional reviews case
320
Treating professional adjust teeth positions
322
Collect data from treating professional over the network
324
Update data set with modifications
326

Fig. 6

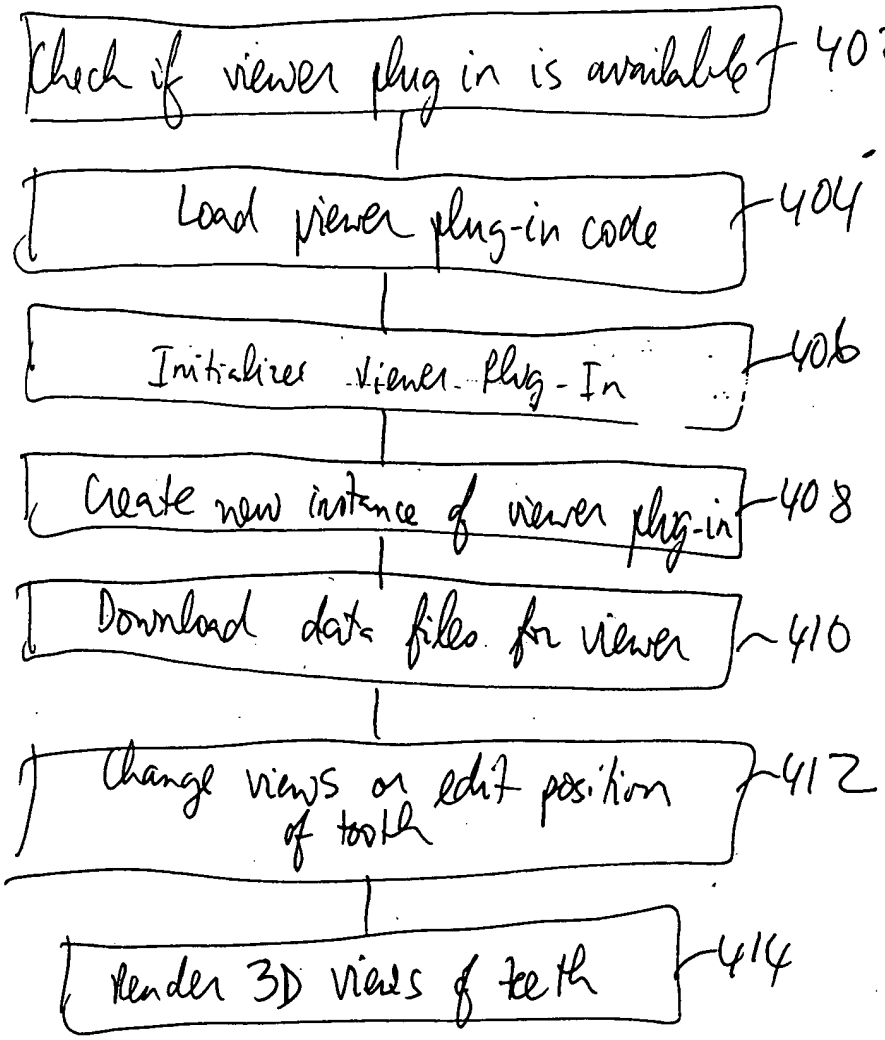
400
Check if viewer plug in is available
402
Load viewer plug-in code
404
Initialize viewer Plug-In
406
Create new instance of viewer plug-in
408
Download data files for viewer
410
Change views or edit position of tooth
412
Render 3D views of teeth
414

FIG. 7